

PCT09

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/830,446

DATE: 10/29/2001  
 TIME: 11:24:00

Input Set : A:\seqed.app.txt  
 Output Set: N:\CRF3\10292001\I830446.raw      Does Not Comply  
     Corrected Diskette Needed

3 <110> APPLICANT: MURDIN, Andrew D.; OOMEN, Raymond P; and WANG, Joe  
 5 <120> TITLE OF INVENTION: Chlamydia antigens and corresponding DNA fragments and uses  
 thereof  
 7 <130> FILE REFERENCE: 77813-51  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/830,446  
 C--> 10 <141> CURRENT FILING DATE: 2001-09-21  
 12 <150> PRIOR APPLICATION NUMBER: US 60/106034  
 13 <151> PRIOR FILING DATE: 1998-10-28  
 14 <150> PRIOR APPLICATION NUMBER: US 60/106039  
 15 <151> PRIOR FILING DATE: 1998-10-28  
 16 <150> PRIOR APPLICATION NUMBER: US 60/10604  
 17 <151> PRIOR FILING DATE: 1998-10-28  
 18 <150> PRIOR APPLICATION NUMBER: US 60/106044  
 19 <151> PRIOR FILING DATE: 1998-10-28  
 20 <150> PRIOR APPLICATION NUMBER: US 60/106072  
 21 <151> PRIOR FILING DATE: 1998-10-29  
 22 <150> PRIOR APPLICATION NUMBER: US 60/106073  
 23 <151> PRIOR FILING DATE: 1998-10-29  
 24 <150> PRIOR APPLICATION NUMBER: US 60/106074  
 25 <151> PRIOR FILING DATE: 1998-10-29  
 26 <150> PRIOR APPLICATION NUMBER: US 60/106087  
 27 <151> PRIOR FILING DATE: 1998-10-29  
 28 <150> PRIOR APPLICATION NUMBER: US 60/106587  
 29 <151> PRIOR FILING DATE: 1998-11-02  
 30 <150> PRIOR APPLICATION NUMBER: US 60/106588  
 31 <151> PRIOR FILING DATE: 1998-11-02  
 32 <150> PRIOR APPLICATION NUMBER: US 60/107089  
 33 <151> PRIOR FILING DATE: 1998-11-02  
 34 <150> PRIOR APPLICATION NUMBER: US 60/107034  
 35 <151> PRIOR FILING DATE: 1998-11-02  
 36 <150> PRIOR APPLICATION NUMBER: US 60/107035  
 37 <151> PRIOR FILING DATE: 1998-11-02  
 39 <160> NUMBER OF SEQ ID NOS: 45  
 41 <170> SOFTWARE: PatentIn Ver. 2.0

#### ERRORED SEQUENCES

3349 <210> SEQ ID NO: 36  
 3350 <211> LENGTH: 588  
 3351 <212> TYPE: PRT  
 3352 <213> ORGANISM: Chlamydia pneumoniae  
 3354 <400> SEQUENCE: 36  
 3355 Ile Leu Gln Ile Glu Asp Leu Ser Ile Thr Leu  
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 3358 Ala Lys Gln Arg Gln Gln Tyr Pro Ile Val Gln Ser Leu Ser Phe Thr  
 3359                15                20                25  
 3361 Ile Asn Glu Gly Gln Thr Leu Ala Ile Ile Gly Glu Ser Gly Ser Gly

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Input Set : A:\seqed.app.txt  
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3362	30	35	40	
3364	Lys Ser Val Ser Ala His Ala Ile Leu Arg Leu Leu Pro Cys Pro Pro			
3365	45	50	55	
3367	Phe Ser Val Ser Gly Gln Val Asn Phe Gln Gly His Asn Leu Leu Thr			
3368	60	65	70	75
3370	Ala Ser Arg Ser Ile Gln Lys Lys Ile Ile Gly Thr Glu Ile Ser Met			
3371	80	85	90	
3373	Ile Phe Gln Asn Pro Gln Ala Ser Leu Asn Pro Val Phe Thr Ile Glu			
3374	95	100	105	
3376	Gln Gln Phe Arg Glu Ile Ile His Thr His Leu Ala Leu Thr Ala Glu			
3377	110	115	120	
3379	Val Ala Lys Glu Lys Met Leu Tyr Ala Leu Glu Glu Thr Gly Phe His			
3380	125	130	135	
3382	Asp Pro Arg Leu Cys Leu Asn Leu Tyr Pro His Gln Leu Ser Gly Gly			
3383	140	145	150	155
3385	Met Leu Gln Arg Ile Cys Ile Ala Met Ala Leu Leu Cys Ser Pro Lys			
3386	160	165	170	
3388	Leu Leu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val Ser Val Gln			
3389	175	180	185	
3391	Tyr Gln Ile Leu Gln Leu Leu Lys Thr Leu Gln Lys Lys Thr Gly Met			
3392	190	195	200	
3394	Ser Leu Leu Ile Ile Thr His Asn Met Gly Val Val Ala Glu Thr Ala			
3395	205	210	215	
3397	Asp Asp Val Leu Val Leu Tyr Ala Gly Arg Met Val Glu Cys Ala Pro			
3398	220	225	230	235
3400	Ala Val Gln Met Phe His Asn Pro Ser His Pro Tyr Thr Arg Asp Leu			
3401	240	245	250	
3403	Leu Ala Ser Arg Pro Ser Leu Gln Pro Gln Gln Leu Gly Ser Phe Asn			
3404	255	260	265	
3406	Pro Ile Pro Gly Gln Pro Pro His Tyr Thr Ala Phe Pro Ser Gly Cys			
3407	270	275	280	
3409	Arg Tyr His Pro Arg Cys Ser Lys Ile Leu Asn Arg Cys Ser Ala Glu			
3410	285	290	295	
3412	Ala Pro Glu Ile Tyr Pro Val Arg Glu Gly His Lys Val Arg Val Gly			
3413	300	305	310	315
3415	Cys Met Thr Thr Asn Phe Pro Gln Pro Leu Ile Gln Ala Thr Ser Leu			
3416	320	325	330	
3418	Thr Lys His Tyr Tyr Lys Arg Ser Phe Trp Phe Gln Gly Lys Thr Ile			
3419	335	340	345	
3421	Ala Ser Arg Pro Val Asp Asp Val Ser Phe Ser Leu Tyr Ser Arg Arg			
3422	350	355	360	
3424	Ala Val Gly Leu Ile Gly Glu Ser Gly Ser Gly Lys Ser Thr Leu Ala			
3425	365	370	375	
3427	Leu Ala Leu Ala Gly Leu Leu Pro Leu Thr Ser Gly Phe Leu Thr Phe			
3428	380	385	390	395
3430	Asn Gly Thr Pro Ile Lys Leu His Ser Lys His Gly Arg His Gln Leu			
3431	400	405	410	
3433	Arg Ser Gln Val Arg Leu Val Phe Gln Asn Pro Gln Ala Ser Leu Asn			
3434	415	420	425	

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3436 Pro Arg Lys Thr Ile Leu Asp Ser Leu Gly His Ser Leu Leu Tyr His  
 3437 430 435 440  
 3439 Lys Leu Val Pro Lys Glu Lys Val Leu Ala Thr Val Arg Glu Tyr Leu  
 3440 445 450 455  
 3442 Glu Leu Val Gly Leu Ser Glu Glu Tyr Phe Tyr Arg Tyr Pro His Gln  
 3443 460 465 470 475  
 3445 Leu Ser Gly Gly Gln Gln Arg Val Ser Ile Ala Arg Ala Leu Leu  
 3446 480 485 490  
 3448 Gly Val Pro Gln Leu Ile Ile Cys Asp Glu Ile Val Ser Ala Leu Asp  
 3449 495 500 505  
 3451 Leu Ser Ile Gln Ala Gln Ile Leu Asn Met Leu Ala Glu Leu Gln Lys  
 3452 510 515 520  
 3454 Lys Leu Ser Leu Thr Tyr Leu Phe Ile Ser His Asp Leu Ala Val Val  
 3455 525 530 535  
 3457 Arg Ser Phe Cys Thr Glu Val Phe Ile Met Tyr Lys Gly Gln Ile Val  
 3458 540 545 550 555  
 3460 Glu Lys Gly Asn Thr Lys Arg Ile Phe Ser Asp Pro Gln His Pro Tyr  
 3461 560 565 570  
 3463 Thr Arg Met Leu Leu Asn Ala Gln Leu Pro Glu Thr Pro Asp Gln Arg  
**E--> 3464 575** 585 → Many to 585  
 3466 Gln  
 4750 <210> SEQ ID NO: 45  
 4751 <211> LENGTH: 813  
 4752 <212> TYPE: PRT  
 4753 <213> ORGANISM: Chlamydia pneumoniae  
 4755 <400> SEQUENCE: 45  
 4756 Ser Ala Leu Gln Pro Thr Asp Ser Leu Thr Val  
 4757 1 5 10  
 4759 Glu Asn Ile Ser Gln Ser Ile Lys Phe Phe Gly Asn Leu Ala Asn Phe  
 4760 15 20 25  
 4762 Gly Ser Ala Ile Ser Ser Ser Pro Thr Ala Val Val Lys Phe Ile Asn  
 4763 30 35 40  
 4765 Asn Thr Ala Thr Met Ser Phe Ser His Asn Phe Thr Ser Ser Gly Gly  
 4766 45 50 55  
 4768 Gly Val Ile Tyr Gly Gly Ser Ser Leu Leu Phe Glu Asn Asn Ser Gly  
 4769 60 65 70 75  
 4771 Cys Ile Ile Phe Thr Ala Asn Ser Cys Val Asn Ser Leu Lys Gly Val  
 4772 80 85 90  
 4774 Thr Pro Ser Ser Gly Thr Tyr Ala Leu Gly Ser Gly Gly Ala Ile Cys  
 4775 95 100 105  
 4777 Ile Pro Thr Gly Thr Phe Glu Leu Lys Asn Asn Gln Gly Lys Cys Thr  
 4778 110 115 120  
 4780 Phe Ser Tyr Asn Gly Thr Pro Asn Asp Ala Gly Ala Ile Tyr Ala Glu  
 4781 125 130 135  
 4783 Thr Cys Asn Ile Val Gly Asn Gln Gly Ala Leu Leu Leu Asp Ser Asn  
 4784 140 145 150 155  
 4786 Thr Ala Ala Arg Asn Gly Gly Ala Ile Cys Ala Lys Val Leu Asn Ile  
 4787 160 165 170  
 4789 Gln Gly Arg Gly Pro Ile Glu Phe Ser Arg Asn Arg Ala Glu Lys Gly

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4790	175	180	185	
4792	Gly Ala Ile Phe Ile Gly Pro Ser Val Gly Asp Pro Ala Lys Gln Thr			
4793	190	195	200	
4795	Ser Thr Leu Thr Ile Leu Ala Ser Glu Gly Asp Ile Ala Phe Gln Gly			
4796	205	210	215	
4798	Asn Met Leu Asn Thr Lys Pro Gly Ile Arg Asn Ala Ile Thr Val Glu			
4799	220	225	230	235
4801	Ala Gly Gly Glu Ile Val Ser Leu Ser Ala Gln Gly Gly Ser Arg Leu			
4802	240	245	250	
4804	Val Phe Tyr Asp Pro Ile Thr His Ser Leu Pro Thr Thr Ser Pro Ser			
4805	255	260	265	
4807	Asn Lys Asp Ile Thr Ile Asn Ala Asn Gly Ala Ser Gly Ser Val Val			
4808	270	275	280	
4810	Phe Thr Ser Lys Gly Leu Ser Ser Thr Glu Leu Leu Leu Pro Ala Asn			
4811	285	290	295	
4813	Thr Thr Thr Ile Leu Leu Gly Thr Val Lys Ile Ala Ser Gly Glu Leu			
4814	300	305	310	315
4816	Lys Ile Thr Asp Asn Ala Val Val Asn Val Ala Gly Phe Ala Thr Gln			
4817	320	325	330	
4819	Gly Ser Gly Gln Leu Thr Leu Gly Ser Gly Gly Thr Leu Gly Leu Ala			
4820	335	340	345	
4822	Thr Pro Thr Gly Ala Pro Ala Ala Val Asp Phe Thr Ile Gly Lys Leu			
4823	350	355	360	
4825	Ala Phe Asp Pro Phe Ser Phe Leu Lys Arg Asp Phe Val Ser Ala Ser			
4826	365	370	375	
4828	Val Asn Ala Gly Thr Lys Asn Val Thr Leu Thr Gly Ala Leu Val Leu			
4829	380	385	390	395
4831	Asp Glu His Asp Val Thr Asp Leu Tyr Asp Met Val Ser Leu Gln Ser			
4832	400	405	410	
4834	Pro Val Ala Ile Pro Ile Ala Val Phe Lys Gly Ala Thr Val Thr Lys			
E--> 4835	(445) - change to 415 420	420	425	
4837	Thr Gly Phe Pro Asp Gly Glu Ile Ala Thr Pro Ser His Tyr Gly Tyr			
4838	430	435	440	
4840	Gln Gly Lys Trp Ser Tyr Thr Trp Ser Arg Pro Leu Leu Ile Pro Ala			
4841	445	450	455	
4843	Pro Asp Gly Gly Phe Pro Gly Gly Pro Ser Pro Ser Ala Asn Thr Leu			
4844	460	465	470	475
4846	Tyr Ala Val Trp Asn Ser Asp Thr Leu Val Arg Ser Thr Tyr Ile Leu			
4847	480	485	490	
4849	Asp Pro Glu Arg Tyr Gly Glu Ile Val Ser Asn Ser Leu Trp Ile Ser			
4850	495	500	505	
4852	Phe Leu Gly Asn Gln Ala Phe Ser Asp Ile Leu Gln Asp Val Leu Leu			
4853	510	515	520	
4855	Ile Asp His Pro Gly Leu Ser Ile Thr Ala Lys Ala Leu Gly Ala Tyr			
4856	525	530	535	
4858	Val Glu His Thr Pro Arg Gln Gly His Glu Gly Phe Ser Gly Arg Tyr			
4859	540	545	550	555
4861	Gly Gly Tyr Gln Ala Ala Leu Ser Met Asn Tyr Thr Asp His Thr Thr			
4862	560	565	570	

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4864 Leu Gly Leu Ser Phe Gly Gln Leu Tyr Gly Lys Thr Asn Ala Asn Pro  
4865 575 580 585  
4867 Tyr Asp Ser Arg Cys Ser Glu Gln Met Tyr Leu Leu Ser Phe Phe Gly  
4868 590 595 600  
4870 Gln Phe Pro Ile Val Thr Gln Lys Ser Glu Ala Leu Ile Ser Trp Lys  
4871 605 610 615  
4873 Ala Ala Tyr Gly Tyr Ser Lys Asn His Leu Asn Thr Thr Tyr Leu Arg  
4874 620 625 630 635  
4876 Pro Asp Lys Ala Pro Lys Ser Gln Gly Gln Trp His Asn Asn Ser Tyr  
4877 640 645 650  
4879 Tyr Val Leu Ile Ser Ala Glu His Pro Phe Leu Asn Trp Cys Leu Leu  
4880 655 660 665  
4882 Thr Arg Pro Leu Ala Gln Ala Trp Asp Leu Ser Gly Phe Ile Ser Ala  
4883 670 675 680  
4885 Glu Phe Leu Gly Gly Trp Gln Ser Lys Phe Thr Glu Thr Gly Asp Leu  
4886 685 690 695  
4888 Gln Arg Ser Phe Ser Arg Gly Lys Gly Tyr Asn Val Ser Leu Pro Ile  
4889 700 705 710 715  
4891 Gly Cys Ser Ser Gln Trp Phe Thr Pro Phe Lys Lys Ala Pro Ser Thr  
4892 720 725 730  
4894 Leu Thr Ile Lys Leu Ala Tyr Lys Pro Asp Ile Tyr Arg Val Asn Pro  
4895 735 740 745  
4897 His Asn Ile Val Thr Val Val Ser Asn Gln Glu Ser Thr Ser Ile Ser  
4898 750 755 760  
4900 Gly Ala Asn Leu Arg Arg His Gly Leu Phe Val Gln Ile His Asp Val  
4901 765 770 775  
4903 Val Asp Leu Thr Glu Asp Thr Gln Ala Phe Leu Asn Tyr Thr Phe Asp  
4904 780 785 790 795  
4906 Gly Lys Asn Gly Phe Thr Asn His Arg Val Ser Thr Gly Leu Lys Ser  
4907 800 805 810  
4909 Thr Phe

**VERIFICATION SUMMARY**  
PATENT APPLICATION: US/09/830,446

DATE: 10/29/2001  
TIME: 11:24:02

Input Set : A:\seqed.app.txt  
Output Set: N:\CRF3\10292001\I830446.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:3464 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:36  
L:4835 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:45